

Diphtheria Checklist

It will be useful to review the list of symptoms and signs and other factors that may be considered when determining probability (high or low) of diphtheria and need for diphtheria antitoxin.

	Symptom or event	Yes /No
Suspect case	Pharyngitis or nasopharyngitis or tonsillitis or laryngitis or combination , absent or low-grade fever ($\leq 103^{\circ}\text{F}$)	
	Grayish adherent pseudo-membrane present	
	Membrane bleeds, if manipulated or dislodged	
Probable case	Suspect case above + 1 or more of the following	
	- Stridor or change in voice	
	- Bull-neck (cervical edema)	
	- Toxic circulatory collapse	
	- Acute renal insufficiency	
	- Sub-mucosal or sub-cutaneous petechial hemorrhage	
	- Myocarditis	
	- Death	
	Recently returned (<2 weeks) from travel to area with endemic diphtheria?	
	Recent contact (<2 weeks) with confirmed diphtheria case or carrier?	
	Recent contact (<2 weeks) with visitor from area with endemic diphtheria?	
	Recent contact with dairy or farm animals? Domestic pets?	
	Immunization status: Up-to-date - any DTaP/DT/Tdap/Td shot within past 10 years?	
Laboratory Confirmed case	Culture of <i>C. diphtheriae</i> or <i>C. ulcerans</i> AND	
	- Positive Elek Test OR	
	- PCR for <i>tox</i> gene (Positive for subunit A and B) OR	
	- 4-fold rise in serum anti-diphtheria IgG antibody levels between acute and convalescent stage of illness.	

What other disease agents may be considered in the differential diagnosis of respiratory diphtheria?

Respiratory diphtheria is an uncommon disease in the US. Respiratory diphtheria may be caused by toxigenic strains of *Corynebacterium diphtheriae*, uncommonly *C. ulcerans*, *C. pseudodiphthericum*. Non-toxigenic strains of *C. diphtheriae* may also be associated with respiratory diphtheria.

Other disease agents which result in membranous pharyngitis include:

1. Group A β -hemolytic *Streptococcus*
2. *Staphylococcus aureus*
3. *Arcanobacter hemolyticum*
4. *Candida albicans*
5. *Borrelia vincenti* (Vincent's angina)
6. *H. influenzae* (acute epiglottitis)
7. Viruses - EBV (Infectious mononucleosis), adenovirus, *Herpes simplex*,
8. Other agents - *Toxoplasma*

Use of some anti-neoplastic agents may also result in formation of a pharyngeal membrane e.g., methotrexate.